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James E. McGreevey
Governor

State of New Jersey
Department of Environmental Protection
Division of Remediation Management and Response
Bureau of Environmental Evaluation and Risk Assessment
P.O. Box 413
Trenton, New Jersey 08625-0413
Phone: (609) 633-7413
Fax: (609) 292-0848

Bradley M. Campbell
Commissioner

MEMORANDUM

June 24, 2003

TO: Frank Faranca, Case Manager, BSCM, DRPSR

FROM: Andrew C. Marinucci, Ph.D., Technical Coordinator,
Bureau of Environmental Evaluation and Risk Assessment

RE: Duane Marine, Perth Amboy,
ATSDR Health Consultation

BACKGROUND

The Duane Marine Site is located in an industrial section of Perth Amboy, Middlesex County. The Site is adjacent to the Arthur Kill and rests primarily on fill material. The majority of the site is paved with a thick layer of concrete.

Duane Marine Salvage Company operated as a Hazardous Waste Treatment, Storage, and Disposal (TSD) facility from 1975 to 1980. After a fire in 1980, the site was abandoned. Several empty underground storage tanks, a large (250,000 gal) above-ground tank, empty tankers, roll-offs and two fire-gutted buildings remain at the site. Prior to the TSD operation, the Duane Marine site was part of General Cable, a copper wire manufacturer. The site itself was mined for clay and refilled with three layers of debris prior to the General Cable operations. These were, in increasing elevation, oyster shells, coal slag, and construction wastes. The site is also traversed by a section of the combined Perth Amboy Sewer system which has the potential to leak contamination into the subsurface soils.

From 1980 to 1984, the USEPA and NJDEP conducted investigations on the site. As a result of these investigations, EPA issued 106 Orders to the responsible parties for the immediate removal of the contamination on the site. The respondents complied with this order and were informed in 1987 that the 106 Orders were fulfilled.

In December 1990, the NJDEP entered into an Administrative Consent Order (ACO) with the responsible parties (RP) of the Duane Marine site. These RPs have formed into a joint remedial group known as the Duane Marine Steering Committee. As a result, the Steering Committee completed a Remedial Investigation (RI) in 1992 and submitted a Feasibility Study (FS) to evaluate site wide remedial goals and screen various mitigation strategies.

After a lengthy delay, an extensive sampling episode was carried out by Roy F. Weston in 2001. These data show that carcinogenic PAH's, PCBs, some insecticides, and some metals are present at unacceptable levels at the site. Conestoga Rovers & Associates (CRA) then prepare an Additional Investigation Work Plan to complete the delineation of the site and propose remedial alternatives, which is currently in review by the Department.

Review

The USEPA and the Agency for Toxic Substances and Disease Registry (ATSDR) have deemed Duane Marine site an immediate threat to public health. As such, the NJ Department of Health and Senior Services (NJDHSS) has prepared a Health Consultation for the site. The Health Consultation (HC)

I have the following comments concerning the Consultation.

1. Fitting a rectangle over the site, it measures 400 ft x 320 ft which is approximately 3 acres. If the irregular shoreline is taken into account, the site is approximately 2 acres. The HC states that the site is 7 acres. This needs to be corrected.
2. The concern for lead health effects maybe exaggerated. The principle vulnerable population for exposure to lead is children below the age of 6. The trespassing children at the site have been identified as pre-teens (7, 11-12 year olds) which are much less vulnerable to the effects of chronic lead ingestion as such, the detailed discussion of lead effects seems unnecessary.
3. The HC identified cadmium and PCBs as the main health concern for the site.
4. Three recommendations were made in the Health Consultation. They are:
 - a. the site needs to be re-secured and the fence needs upgrading and repair
 - b. the trespassing population of homeless men needs to be relocated off the property
 - c. Additional sampling needs to take place to confirm the levels of PCB and cadmium at the site.

These are reasonable recommendations; a & b should be implemented as soon as possible. Recommendation c can be implemented; however, if the site is redeveloped and the contamination is placed under a permanent cap, then no sampling is needed to further assess health threat level since the route of exposure is eliminated.

Please contact me at 4-9784 if you have any questions.

cc: David Haymes, EES-2
Tracy Grabiak, BGWPA